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Summary of Occupational Injuries, Illnesses, and Fatalities in the Petroleum Industry

As Reported to the American Petroleum Institute

Covering Petroleum and Petrochemical Operations of Reporting Companies for 1989

JULY 1990

American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005

SUMMARY OF OCCUPATIONAL INJURIES, ILLNESSES, AND FATALITIES IN THE PETROLEUM INDUSTRY FOR 1989

Participants in the 1989 summary were asked to submit data according to the Bureau of Labor Statistics (BLS) Recordkeeping Guidelines for Occupational Injuries and Illnesses - September 1986 Edition. The survey provides incidence rates per 200,000 hours worked on the same basis as those reported by BLS.

This summary report is based on data submitted to the American Petroleum Institute (API) by 96 oil and gas companies employing over 276,000 persons with a work experience of over 567,700,000 hours. The Total Case Incidence Rate was 3.59 for 1989, as compared to 3.83 in 1988. This rate is the number of total recordable cases per 200,000 hours worked or, approximately, the number of cases per 100 full-time workers per year.

The Fatal plus Days Away From Work Incidence Rate for 1989 averaged 0.97 per 200,000 hours worked, compared to 1.01 in 1988. The ratio of workers to the Fatal or Days Away From Work cases during 1989 averaged one case for every 102 employees compared to one case in every 96 employees in 1988. One death among petroleum workers was reported in 1989 for every 6,002 employees, compared to one death for every 9,748 employees in 1988.

NOTE: Company participation in the API annual statistical survey is voluntary and fluctuates from year to year.

These data cover company employees only; contractor safety statistics are not included.

Additional copies of this report may be obtained by contacting the API Publications and Distribution Department at 202-682-8375.

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

1		2	3	4			5						6		
				Recordable Cases			Extent and Outcome of Injury and Illness						Incidence Rates		
				a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.
								Lost Workday Cases							
Function	Function Key[1]	Average Number of Employees	Hours Worked Thousands	Injuries	Illnesses	Total	Fatalities	Total Lost Workday Cases	Cases Involving Days Away From Work	Number of Days Away From Work	Number of Days of Restricted Activity	Non Fatal Cases Without Lost Workdays	Total Cases	Fatal plus Days Away From Work Cases	Lost Workdays Days Away From Work
Exploration	a	6,712	14,084	38	1	39	0	20	14	469	80	19	0.55	0.20	6.66
Production	b	33,982	71,353	889	20	909	8	411	321	9,511	1,910	490	2.55	0.92	26.66
E&P-Not Sep[2]	ab	20,216	41,529	661	4	665	0	299	168	3,332	1,835	366	3.20	0.81	16.05
E&P Subtotal		60,910	126,966	1,588	25	1,613	8	730	503	13,312	3,825	875	2.54	0.80	20.97
Gas Processing	c	5,636	11,444	197	14	211	1	73	64	1,220	213	137	3.69	1.14	21.32
Drilling	d	966	2,028	79	0	79	0	37	27	868	101	42	7.79	2.66	85.60
Petrochemical Mfg	e	14,831	31,092	667	25	692	20	336	131	4,033	4,060	336	4.45	0.97	25.94
Refining	f	46,143	95,303	2,700	208	2,908	13	1,447	637	13,257	16,582	1,448	6.10	1.36	27.82
Marketing-Whole.	g	19,933	37,378	662	14	676	0	360	236	4,049	1,323	316	3.62	1.26	21.67
Marketing-Retail	h	24,568	49,385	1,343	9	1,352	0	649	268	4,791	5,543	703	5.48	1.09	19.40
Mrkt. Not Sep[3]	gh	7,479	15,689	230	2	232	0	133	75	1,681	647	99	2.96	0.96	21.43
Mrkt. Subtotal		51,980	102,452	2,235	25	2,260	0	1,142	579	10,521	7,513	1,118	4.41	1.13	20.54

Incidence Rates (Column 6) are calculated as follows:

Column 6(j) = $\frac{\text{Column 4(c)} \times 200{,}000}{\text{Column 3} \times 1{,}000}$ Column 6(k) = $\frac{\text{Column 5(d) + 5(f)} \times 200{,}000}{\text{Column 3} \times 1{,}000}$ Column 6(l) = $\frac{\text{Column 5(g)} \times 200{,}000}{\text{Column 3} \times 1{,}000}$

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

1		2	3	4			5						6		
				Recordable Cases			Extent and Outcome of Injury and Illness						Incidence Rates		
				a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.
								Lost Workday Cases							
Function	Function Key[1]	Average Number of Employees	Hours Worked Thousands	Injuries	Illnesses	Total	Fatalities	Total Lost Workday Cases	Cases Involving Days Away From Work	Number of Days Away From Work	Number of Days of Restricted Activity	Non Fatal Cases Without Lost Workdays	Total Cases	Fatal plus Days Away From Work Cases	Lost Workdays Days Away From Work
Pipeline-Liquid	i	7,081	14,392	263	8	271	0	76	51	1,505	812	195	3.77	0.71	20.91
Pipeline-Gas	j	19,645	39,951	973	47	1,020	1	544	365	6,330	3,496	475	5.11	1.83	31.69
Pipeline-Not Sep[4]	ij	7,927	15,698	226	5	231	2	93	61	860	423	136	2.94	0.80	10.96
Pipeline-Subtotal		34,653	70,041	1,462	60	1,522	3	713	477	8,695	4,731	806	4.35	1.37	24.83
Marine-Tanker	k	1,613	5,240	52	3	55	1	47	45	2,759	7	7	2.10	1.76	105.31
Marine-Inland	l	459	1,752	22	0	22	0	12	12	134	109	10	2.51	1.37	15.30
Marine-Not Sep[5]	kl	1,139	3,705	47	1	48	0	18	18	415	0	30	2.59	0.97	22.40
Marine-Subtotal		3,211	10,697	121	4	125	1	77	75	3,308	116	47	2.34	1.42	61.85
Research & Dev.	m	9,574	18,935	139	25	164	0	45	13	256	377	119	1.73	0.14	2.70
General Services	n	3,368	6,742	142	5	147	0	50	37	724	267	97	4.36	1.10	21.48
Admin.,Eng.,Other	o	44,802	92,044	424	33	457	0	267	152	2,754	2,118	190	0.99	0.33	5.98
Total		276,074	567,744	9,754	424	10,178	46	4,917	2,695	58,948	39,903	5,215	3.59	0.97	20.77

Incidence Rates (Column 6) are calculated as follows:

$$\text{Column 6(j)} = \frac{\text{Column 4(c)} \times 200{,}000}{\text{Column 3} \times 1{,}000} \qquad \text{Column 6(k)} = \frac{\text{Column 5(d)} + \text{5(f)} \times 200{,}000}{\text{Column 3} \times 1{,}000} \qquad \text{Column 6(l)} = \frac{\text{Column 5(g)} \times 200{,}000}{\text{Column 3} \times 1{,}000}$$

[1]Keyed to definitions outlined in the API Fire and Safety Data System User's Manual.
[2]Exploration and Production data unable to be separated into Exploration or Production functions.
[3]Marketing data unable to be separated into Wholesale or Retail functions.
[4]Pipeline data unable to be separated into Liquid or Gas functions.
[5]Marine data unable to be separated into Tanker or Inland functions.

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

The following code will indicate the functions for which each company reported:

a - Exploration	g - Marketing - Wholesale	k - Marine - Tanker
b - Production	h - Marketing - Retail	l - Marine - Inland
(ab) - Exploration & Production-Not Sep.	(gh) - Marketing-Not Separated	(kl) - Marine-Not Separated
c - Gas Processing	i - Pipeline - Liquid	m - Research & Development
d - Drilling	j - Pipeline - Gas	n - General Services
e - Petrochemical Manufacturing	(ij) - Pipeline-Not Separated	o - Administration, Engineering & Other
f - Refining		

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Lost Workday Cases: Total Lost Work-day Cases	f. Cases Involving Days Away From Work	g. Number of Days Away From Work	h. Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Work days Days Away From Work	Function
ALL FUNCTIONS															
Total	276,074	567,744	9,754	424	10,178	46	4,917	2,695	58,948	39,903	5,215	3.59	0.97	20.77	
00001	11	24	0	0	0							0.00	0.00	0.00	c
00003	50	100	0	0	0							0.00	0.00	0.00	g
00005	3,058	6,116	72	0	72	1	45	44	1,341	36	26	2.35	1.47	43.85	abcgo
00006	140	327	39	3	42	0	20	11	82	170	22	25.69	6.73	50.15	f
00008	100	220	6	0	6	0	4	4	188	5	2	5.45	3.64	170.91	f
00009	35	88	9	0	9	0	7	7	60	0	2	20.45	15.91	136.36	(ab)c
00010	36	73	0	0	0							0.00	0.00	0.00	j
00011	3,641	6,995	178	0	178	2	83	27	925	1,027	93	5.09	0.83	26.45	(ab)ef(gh)(ij)mo
00014	14,302	28,729	554	5	559	7	234	167	4,937	915	318	3.89	1.21	34.37	abcdfg(ij)kmno
00017	635	1,162	33	4	37	0	14	14	511	11	23	6.37	2.41	87.95	i
00019	503	1,046	9	0	9	0	4	4	244	0	5	1.72	0.76	46.65	(ab)
00020	32	61	3	0	3	0	1	1	1	0	2	9.84	3.28	3.28	f
00021	249	458	11	0	11	0	0	0	0	0	11	4.80	0.00	0.00	i
00022	87	173	2	0	2	0	0	0	0	0	2	2.31	0.00	0.00	ado
00023	1,383	2,825	37	0	37	1	6	6	238	27	30	2.62	0.50	16.85	bc(ij)o
00024	20,234	43,927	718	57	775	2	446	370	8,063	1,931	327	3.53	1.69	36.71	abcfgh(ij)o
00025	44	90	2	0	2	0	0	0	0	0	2	4.44	0.00	0.00	o
00026	65	133	3	0	3	0	2	2	23	0	1	4.51	3.01	34.59	fgo
00027	2,822	6,883	75	0	75	0	26	26	683	0	49	2.18	0.76	19.85	(ab)co
00029	679	1,412	26	0	26	0	10	10	299	65	16	3.68	1.42	42.35	i
00030	1,201	2,274	38	1	39	0	19	19	441	0	20	3.43	1.67	38.79	j
00031	3,289	7,325	135	5	140	0	43	43	836	156	97	3.82	1.17	22.83	j

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Lost Workday Cases: Total Lost Workday Cases	f. Lost Workday Cases: Cases Involving Days Away From Work	g. Number of Days Away From Work	h. Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Workdays Away From Work	Function
ALL FUNCTIONS (continued)															
00032	15,652	32,550	226	1	227	2	83	20	583	638	142	1.39	0.14	3.58	abcf(gh)(ij)(kl)mno
00033	16	37	2	0	2	0	2	2	12	0		10.81	10.81	64.86	i
00035	703	1,379	8	0	8	0	0	0	0	0	8	1.16	0.00	0.00	(ab)c
00037	2,974	6,252	42	7	49	0	16	16	633	679	33	1.57	0.51	20.25	j
00038	132	300	5	0	5	0	0	0	0	0	5	3.33	0.00	0.00	i
00041	27,531	56,432	821	87	908	1	406	148	5,059	3,416	501	3.22	0.53	17.93	abfghijkl(kl)no
00042	2,463	4,759	22	5	27	0	18	5	153	164	9	1.13	0.21	6.43	mno
00043	452	1,113	38	4	42	1	20	20	346	288	21	7.55	3.77	62.17	fi
00046	287	528	20	0	20	0	13	4	250	95	7	7.58	1.52	94.70	f
00047	24,894	50,058	1,317	0	1,317	0	621	269	4,838	5,948	696	5.26	1.07	19.33	(ab)fghik
00048	32	64	0	0	0							0.00	0.00	0.00	bc
00053	125	320	13	0	13	2	4	4	261	0	7	8.13	3.75	163.13	f
00054	1,548	3,173	111	0	111	0	41	41	547	0	70	7.00	2.58	34.48	j
00055	128	250	21	0	21	0	4	4	5	0	17	16.80	3.20	4.00	i
00056	4,718	9,170	344	12	356	0	260	117	1,825	1,953	96	7.76	2.55	39.80	j
00057	37	67	7	0	7	0	4	4	16	0	3	20.90	11.94	47.76	c
00058	1,543	3,235	59	1	60	0	23	19	508	21	37	3.71	1.17	31.41	(ab)cefgh(ij)
00060	340	626	14	3	17	0	5	1	11	112	12	5.43	0.32	3.51	(ij)
00062	69	131	0	0	0							0.00	0.00	0.00	abo
00064	2,891	5,398	191	0	191	1	116	88	1,043	328	74	7.08	3.30	38.64	j
00065	8,869	17,179	273	6	279	1	121	58	1,786	1,261	157	3.25	0.69	20.79	abcdfgimno
00068	282	572	16	3	19	0	8	7	59	23	11	6.64	2.45	20.63	emno
00071	660	2,000	57	4	61	0	14	9	63	0	47	6.10	0.90	6.30	h
00074	478	906	20	0	20	0	6	5	118	15	14	4.42	1.10	26.05	jno
00075	770	1,733	23	0	23	0	9	1	50	49	14	2.65	0.12	5.77	bfgo
00077	33	60	0	0	0							0.00	0.00	0.00	bo
00079	340	683	29	2	31	0	15	14	160	13	16	9.08	4.10	46.85	f
00083	130	284	9	0	9	0	7	7	42	20	2	6.34	4.93	29.58	ijl
00090	16,896	34,535	581	6	587	20	266	107	3,631	2,783	301	3.40	0.74	21.03	(ab)cefgh(ij)mno
00091	315	605	2	0	2	0	0	0	0	0	2	0.66	0.00	0.00	i
00092	36	75	1	0	1	0	0	0	0	0	1	2.67	0.00	0.00	i
00093	56	102	3	0	3	0	1	1	4	0	2	5.88	1.96	7.84	io
00094	15	25	0	0	0							0.00	0.00	0.00	jo
00095	1,667	3,267	94	0	94	0	72	14	202	923	22	5.75	0.86	12.37	o
00099	26,922	54,115	585	50	635	0	289	89	2,663	4,922	346	2.35	0.33	9.84	abcdefghimno

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Total Lost Work-day Cases	f. Cases Involving Days Away From Work	g. Number of Days Away From Work	h. Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Work days Days Away From Work	Function
ALL FUNCTIONS (continued)															
00100	99	194	0	0	0							0.00	0.00	0.00	cgo
00101	126	275	8	1	9	0	9	9	76	0		6.55	6.55	55.27	fgh
00102	385	883	1	0	1	0	0	0	0	0	1	0.23	0.00	0.00	(ab)
00103	31	53	1	0	1	0	1	1	45	0		3.77	3.77	169.81	gn
00106	27,149	56,472	723	25	748	3	399	194	3,231	3,916	346	2.65	0.70	11.44	abefgiklmo
00107	7,453	16,840	377	31	408	0	209	151	2,800	1,025	199	4.85	1.79	33.25	f(gh)(ij)(kl)mo
00109	22,880	46,751	733	15	748	0	339	196	3,224	2,048	409	3.20	0.34	13.79	a(ab)cdefg(ij)(kl)m
00111	413	956	31	0	31	0	3	1	101	125	28	6.49	0.21	21.13	i
00113	221	461	26	0	26	0	12	6	383	49	14	11.28	2.60	166.16	abdgino
00116	170	361	5	0	5	0	5	5	50	10		2.77	2.77	27.70	f
00118	10,757	21,954	380	18	398	0	227	87	1,642	2,377	171	3.63	0.79	14.96	(ab)cef(gh)i(kl)mo
00121	350	880	18	0	18	0	18	18	884	154		4.09	4.09	200.91	f
00122	470	1,000	13	0	13	0	2	2	61	27	11	2.60	0.40	12.20	ci
00124	221	436	5	0	5	0	4	0	0	16	1	2.29	0.00	0.00	j
00125	153	299	5	0	5	0	3	2	4	1	2	3.34	1.34	2.68	bco
00138	75	148	7	0	7	0	1	1	1	0	6	9.46	1.35	1.35	fg
00139	682	1,419	74	16	90	1	51	7	53	897	38	12.68	1.13	7.47	f
00140	773	1,607	17	2	19	0	12	12	210	0	7	2.36	1.49	26.14	abgo
00145	398	725	4	0	4	0	2	1	1	4	2	1.10	0.28	0.28	m
00158	10	18	0	0	0							0.00	0.00	0.00	b
00162	1,359	3,195	51	19	70	0	16	13	345	332	54	4.38	0.81	21.60	j
00173	278	587	11	0	11	0	1	1	5	5	10	3.75	0.34	1.70	f
00175	614	969	51	0	51	0	22	16	302	49	29	10.53	3.30	62.33	(ab)fi(ij)o
00182	8	16	1	0	1	0	1	1	22	0		12.50	12.50	275.00	gj
00184	6	12	0	0	0							0.00	0.00	0.00	cgo
00187	582	1,152	133	7	140	1	87	66	830	355	52	24.31	11.63	144.10	f
00190	202	451	12	0	12	0	10	10	44	0	2	5.32	4.43	19.51	f
00191	466	970	2	0	2	0	0	0	0	0	2	0.41	0.00	0.00	abo
00192	317	746	46	21	67	0	34	34	158	202	33	17.96	9.12	42.36	f
00193	37	76	1	0	1	0	1	1	8	0		2.63	2.63	21.05	a
00196	40	83	7	0	7	0	3	3	3	0	4	16.87	7.23	7.23	h
00202	650	1,237	23	0	23	0	1	1	60	188	22	3.72	0.16	9.70	e
00204	875	1,587	34	0	34	0	17	17	471	30	17	4.28	2.14	59.36	j
00205	303	595	17	2	19	0	8	8	163	0	11	6.39	2.69	54.79	cj
00218	89	176	0	0	0							0.00	0.00	0.00	f

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
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ALL FUNCTIONS (continued)															
00219	713	1,517	31	1	32	0	10	1	16	99	22	4.22	0.13	2.11	i
00220	100	205	1	0	1	0	1	1	15	0		0.98	0.98	14.63	f
00222	20	14	1	0	1	0	0	0	0	0	1	14.29	0.00	0.00	f
EXPLORATION															
Total	6,712	14,084	38	1	39	0	20	14	469	80	19	0.55	0.20	6.66	
00005	436	872	3	0	3	0	2	2	132	0	1	0.69	0.46	30.28	
00014	385	772	6	0	6	0	4	3	104	10	2	1.55	0.78	26.94	
00022	32	64	0	0	0							0.00	0.00	0.00	
00024	635	1,602	2	0	2	0	1	1	33	0	1	0.25	0.12	4.12	
00032	536	1,115	1	0	1	0	1	1	49	0		0.18	0.18	8.79	
00041	1,127	2,378	4	1	5	0	3	2	5	13	2	0.42	0.17	0.42	
00062	18	34	0	0	0							0.00	0.00	0.00	
00065	466	863	0	0	0							0.00	0.00	0.00	
00099	1,341	2,802	13	0	13	0	6	4	138	54	7	0.93	0.29	9.85	
00106	865	1,800	5	0	5	0	2	0	0	3	3	0.56	0.00	0.00	
00109	591	1,201	3	0	3	0	0	0	0	0	3	0.50	0.00	0.00	
00113	2	4	0	0	0							0.00	0.00	0.00	
00140	106	220	0	0	0							0.00	0.00	0.00	
00191	135	281	0	0	0							0.00	0.00	0.00	
00193	37	76	1	0	1	0	1	1	8	0		2.63	2.63	21.05	
PRODUCTION															
Total	33,982	71,353	889	20	909	8	411	321	9,511	1,910	490	2.55	0.92	26.66	
00005	1,626	3,252	55	0	55	1	35	34	954	32	19	3.38	2.15	58.67	
00014	5,782	11,021	216	1	217	5	94	84	2,333	181	118	3.94	1.62	42.34	
00023	317	634	24	0	24	1	3	3	162	27	20	7.57	1.26	51.10	
00024	6,847	15,685	141	4	145	1	88	86	2,222	153	56	1.85	1.11	28.33	
00032	2,051	4,265	22	0	22	0	9	5	190	49	13	1.03	0.23	8.91	
00041	5,111	10,905	165	9	174	0	63	27	1,257	878	111	3.19	0.50	23.05	
00048	26	50	0	0	0							0.00	0.00	0.00	
00062	27	51	0	0	0							0.00	0.00	0.00	
00065	2,116	4,509	81	1	82	0	33	15	653	325	49	3.64	0.67	28.96	
00075	46	96	1	0	1	0	1	1	50	0		2.08	2.08	104.17	
00077	26	47	0	0	0							0.00	0.00	0.00	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Total Lost Workday Cases	f. Cases Involving Days Away From Work	g. Number of Days Away From Work	h. Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Workdays Days Away From Work	Function
								PRODUCTION (continued)							
00099	4,613	9,628	70	1	71	0	28	14	588	223	43	1.47	0.29	12.21	
00106	4,655	9,683	90	2	92	0	43	39	889	41	49	1.90	0.81	18.36	
00113	30	63	2	0	2	0	0	0	0	0	2	6.35	0.00	0.00	
00125	75	148	4	0	4	0	2	1	3	1	2	5.41	1.35	4.05	
00140	454	944	16	2	18	0	12	12	210	0	6	3.81	2.54	44.49	
00158	10	18	0	0	0							0.00	0.00	0.00	
00191	170	354	2	0	2	0	0	0	0	0	2	1.13	0.00	0.00	
								EXPLORATION AND PRODUCTION-NOT SEPARATED[2]							
Total	20,216	41,529	661	4	665	0	299	168	3,332	1,835	366	3.20	0.81	16.05	
00009	30	75	8	0	8	0	6	6	50	0	2	21.33	16.00	133.33	
00011	538	1,078	16	0	16	0	8	5	95	163	8	2.97	0.93	17.63	
00019	503	1,046	9	0	9	0	4	4	244	0	5	1.72	0.76	46.65	
00027	1,450	3,383	36	0	36	0	10	10	473	0	26	2.13	0.59	27.96	
00035	585	1,148	6	0	6	0	0	0	0	0	6	1.05	0.00	0.00	
00047	3,150	6,569	47	0	47	0	35	35	330	0	12	1.43	1.07	10.05	
00058	207	415	12	0	12	0	3	3	240	0	9	5.78	1.45	115.66	
00090	4,245	8,908	110	0	110	0	37	8	179	346	73	2.47	0.18	4.02	
00102	385	883	1	0	1	0	0	0	0	0	1	0.23	0.00	0.00	
00109	6,376	12,960	335	4	339	0	148	52	1,275	1,288	191	5.23	0.80	19.68	
00118	2,652	4,918	81	0	81	0	48	45	446	38	33	3.29	1.83	18.14	
00175	95	146	0	0	0							0.00	0.00	0.00	
								GAS PROCESSING							
Total	5,636	11,444	197	14	211	1	73	64	1,220	213	137	3.69	1.14	21.32	
00001	11	24	0	0	0							0.00	0.00	0.00	
00005	172	344	12	0	12	0	6	6	250	0	6	6.98	3.49	145.35	
00009	5	13	1	0	1	0	1	1	10	0		15.38	15.38	153.85	
00014	435	885	20	1	21	1	6	5	200	5	14	4.75	1.36	45.20	
00023	189	374	11	0	11	0	3	3	76	0	8	5.88	1.60	40.64	
00024	831	1,729	20	11	31	0	4	3	6	4	27	3.59	0.35	0.69	
00027	505	956	25	0	25	0	13	13	207	0	12	5.23	2.72	43.31	
00032	485	1,009	6	0	6	0	1	0	0	14	5	1.19	0.00	0.00	
00035	118	231	2	0	2	0	0	0	0	0	2	1.73	0.00	0.00	
00048	6	14	0	0	0							0.00	0.00	0.00	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Lost Workday Cases: Total Lost Work-day Cases	f. Lost Workday Cases: Cases Involving Days Away From Work	g. Lost Workday Cases: Number of Days Away From Work	h. Lost Workday Cases: Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Work days Days Away From Work	Function
GAS PROCESSING (continued)															
00057	37	67	7	0	7	0	4	4	16	0	3	20.90	11.94	47.76	
00058	33	67	0	0	0							0.00	0.00	0.00	
00065	189	354	7	0	7	0	3	1	9	122	4	3.95	0.56	5.08	
00090	192	457	0	0	0							0.00	0.00	0.00	
00099	768	1,538	11	0	11	0	5	1	2	68	6	1.43	0.13	0.26	
00100	74	145	0	0	0							0.00	0.00	0.00	
00109	1,051	2,135	47	2	49	0	18	18	342	0	31	4.59	1.69	32.04	
00118	166	322	15	0	15	0	8	8	62	0	7	9.32	4.97	38.51	
00122	330	707	10	0	10	0	1	1	40	0	9	2.83	0.28	11.32	
00125	16	36	0	0	0							0.00	0.00	0.00	
00184	3	6	0	0	0							0.00	0.00	0.00	
00205	20	31	3	0	3	0	0	0	0	0	3	19.35	0.00	0.00	
DRILLING															
Total	966	2,028	79	0	79	0	37	27	868	101	42	7.79	2.66	85.60	
00014	59	125	2	0	2	0	1	1	2	0	1	3.20	1.60	3.20	
00022	5	17	2	0	2	0	0	0	0	0	2	23.53	0.00	0.00	
00065	85	160	2	0	2	0	0	0	0	0	2	2.50	0.00	0.00	
00099	314	697	10	0	10	0	6	2	38	52	4	2.87	0.57	10.90	
00109	425	863	40	0	40	0	18	18	445	0	22	9.27	4.17	103.13	
00113	78	166	23	0	23	0	12	6	383	49	11	27.71	7.23	461.45	
PETROCHEMICAL MANUFACTURING															
Total	14,831	31,092	667	25	692	20	336	131	4,033	4,060	336	4.45	0.97	25.94	
00011	535	1,115	39	0	39	0	21	1	14	45	18	7.00	0.18	2.51	
00058	238	497	22	0	22	0	8	8	126	12	14	8.85	3.22	50.70	
00068	97	202	14	3	17	0	7	6	55	23	10	16.83	5.94	54.46	
00090	4,095	9,161	279	3	282	20	151	86	3,079	1,368	111	6.16	2.31	67.22	
00099	2,667	5,461	79	15	94	0	37	4	58	518	57	3.44	0.15	2.12	
00106	3,515	7,311	152	3	155	0	90	18	349	1,548	65	4.24	0.49	9.55	
00109	2,057	4,176	28	1	29	0	9	4	261	250	20	1.39	0.19	12.50	
00118	977	1,932	31	0	31	0	12	3	31	108	19	3.21	0.31	3.21	
00202	650	1,237	23	0	23	0	1	1	60	188	22	3.72	0.16	9.70	
REFINING															
Total	46,143	95,303	2,700	208	2,908	13	1,447	637	13,257	16,582	1,448	6.10	1.36	27.82	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Total Lost Work-day Cases	f. Lost Workday Cases: Cases Involving Days Away From Work	g. Lost Workday Cases: Number of Days Away From Work	h. Lost Workday Cases: Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Work days Days Away From Work	Function
REFINING (continued)															
00006	140	327	39	3	42	0	20	11	82	170	22	25.69	6.73	50.15	
00008	100	220	6	0	6	0	4	4	188	5	2	5.45	3.64	170.91	
00011	726	1,509	80	0	80	2	37	10	568	784	41	10.60	1.59	75.28	
00014	1,669	3,464	103	0	103	0	35	4	157	560	68	5.95	0.23	9.06	
00020	32	61	3	0	3	0	1	1	1	0	2	9.84	3.28	3.28	
00024	7,079	14,682	406	40	446	1	261	192	3,945	1,652	184	6.08	2.63	53.74	
00026	35	73	3	0	3	0	2	2	23	0	1	8.22	5.48	63.01	
00032	1,768	3,676	67	0	67	0	32	4	80	242	35	3.65	0.22	4.35	
00041	5,133	10,677	261	60	321	1	145	30	829	1,373	175	6.01	0.58	15.53	
00043	395	1,005	35	4	39	1	19	19	340	288	19	7.76	3.98	67.66	
00046	287	528	20	0	20	0	13	4	250	95	7	7.58	1.52	94.70	
00047	2,069	4,137	136	0	136	0	42	15	348	772	94	6.57	0.73	16.82	
00053	125	320	13	0	13	2	4	4	261	0	7	8.13	3.75	163.13	
00058	594	1,200	7	1	8	0	4	0	0	9	4	1.33	0.00	0.00	
00065	2,013	3,893	112	4	116	1	50	15	632	621	65	5.96	0.82	32.47	
00075	372	903	21	0	21	0	8	0	0	49	13	4.65	0.00	0.00	
00079	340	683	29	2	31	0	15	14	160	13	16	9.08	4.10	46.85	
00090	2,700	5,479	109	0	109	0	44	6	250	817	65	3.98	0.22	9.13	
00099	5,732	11,374	237	6	243	0	121	21	462	3,415	122	4.27	0.37	8.12	
00101	27	44	3	0	3	0	3	3	10	0		13.64	13.64	45.45	
00106	4,540	9,443	230	3	233	3	127	40	764	1,640	103	4.93	0.91	16.18	
00107	3,080	6,700	223	26	249	0	115	63	1,093	905	134	7.43	1.88	32.63	
00109	1,608	3,265	87	4	91	0	40	13	186	271	51	5.57	0.80	11.39	
00116	170	361	5	0	5	0	5	5	50	10		2.77	2.77	27.70	
00118	2,393	4,978	118	11	129	0	81	9	461	1,229	48	5.18	0.36	18.52	
00121	350	880	18	0	18	0	18	18	884	154		4.09	4.09	200.91	
00138	70	135	6	0	6	0	1	1	1	0	5	8.89	1.48	1.48	
00139	682	1,419	74	16	90	1	51	7	53	897	38	12.68	1.13	7.47	
00173	278	587	11	0	11	0	1	1	5	5	10	3.75	0.34	1.70	
00175	326	536	45	0	45	0	16	10	127	49	29	16.79	3.73	47.39	
00187	582	1,152	133	7	140	1	87	66	830	355	52	24.31	11.63	144.10	
00190	202	451	12	0	12	0	10	10	44	0	2	5.32	4.43	19.51	
00192	317	746	46	21	67	0	34	34	158	202	33	17.96	9.12	42.36	
00218	89	176	0	0	0							0.00	0.00	0.00	
00220	100	205	1	0	1	0	1	1	15	0		0.98	0.98	14.63	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Lost Workday Cases: Total Lost Work-day Cases	f. Cases Involving Days Away From Work	g. Number of Days Away From Work	h. Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Work-days	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Work days Away From Work	Function
REFINING (continued)															
00222	20	14	1	0	1	0	0	0	0	0	1	14.29			
MARKETING-WHOLESALE															
Total	19,933	37,378	662	14	676	0	360	236	4,049	1,323	316	3.62	1.26	21.67	
00003	50	100	0	0	0							0.00	0.00	0.00	
00005	84	168	1	0	1	0	1	1	4	4		1.19	1.19	4.76	
00014	670	1,390	36	0	36	0	17	6	285	88	19	5.18	0.86	41.01	
00024	3,192	6,638	100	2	102	0	61	57	1,418	122	41	3.07	1.72	42.72	
00026	10	20	0	0	0							0.00	0.00	0.00	
00041	6,711	10,127	213	1	214	0	85	32	483	538	129	4.23	0.63	9.54	
00047	1,791	3,582	53	0	53	0	33	25	327	104	20	2.96	1.40	18.26	
00058	70	169	1	0	1	0	1	1	47	0		1.18	1.18	55.62	
00065	1,029	2,012	39	0	39	0	21	15	360	98	18	3.88	1.49	35.79	
00075	92	196	0	0	0							0.00	0.00	0.00	
00090	143	298	3	0	3	0	2	1	3	5	1	2.01	0.67	2.01	
00099	2,474	5,232	76	10	86	0	47	15	886	329	39	3.29	0.57	33.87	
00100	8	16	0	0	0							0.00	0.00	0.00	
00101	73	155	1	1	2	0	2	2	8	0		2.58	2.58	10.32	
00103	26	44	1	0	1	0	1	1	45	0		4.55	4.55	204.55	
00106	1,951	4,058	85	0	85	0	53	53	12	2	32	4.19	2.61	0.59	
00109	1,517	3,083	52	0	52	0	36	27	171	33	16	3.37	1.75	11.09	
00113	8	17	0	0	0							0.00	0.00	0.00	
00138	5	13	1	0	1	0	0	0	0	0	1	15.38	0.00	0.00	
00140	25	52	0	0	0							0.00	0.00	0.00	
00182	3	6	0	0	0							0.00	0.00	0.00	
00184	1	2	0	0	0							0.00	0.00	0.00	
MARKETING-RETAIL															
Total	24,568	49,385	1,343	9	1,352	0	649	268	4,791	5,543	703	5.48	1.09	19.40	
00024	695	1,445	35	0	35	0	24	24	399	0	11	4.84	3.32	55.22	
00041	3,333	6,187	93	4	97	0	64	19	265	325	33	3.14	0.61	8.57	
00047	17,419	34,837	1,077	0	1,077	0	510	193	3,723	5,072	567	6.18	1.11	21.37	
00058	284	606	11	0	11	0	6	6	40	0	5	3.63	1.98	13.20	
00071	660	2,000	57	4	61	0	14	9	63	0	47	6.10	0.90	6.30	
00090	1,720	3,364	40	1	41	0	19	5	118	146	22	2.44	0.30	7.02	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

			Recordable Cases			Extent and Outcome of Injury and Illness						Incidence Rates			
			a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	
							Lost Workday Cases								
Co. No.	Average Number of Employees	Hours Worked Thousands	Injuries	Illnesses	Total	Fatalities	Total Lost Work-day Cases	Cases Involving Days Away From Work	Number of Days Away From Work	Number of Days of Restricted Activity	Non Fatal Cases Without Lost Workdays	Total Cases	Fatal plus Days Away From Work Cases	Lost Work days Days Away From Work	Function
							MARKETING-RETAIL (continued)								
00099	391	787	19	0	19	0	5	5	122	0	14	4.83	1.27	31.00	
00101	26	76	4	0	4	0	4	4	58	0		10.53	10.53	152.63	
00196	40	83	7	0	7	0	3	3	3	0	4	16.87	7.23	7.23	
							MARKETING-NOT SEPARATED[3]								
Total	7,479	15,689	230	2	232	0	133	75	1,681	647	99	2.96	0.96	21.43	
00011	936	1,685	34	0	34	0	17	11	248	35	17	4.04	1.31	29.44	
00032	3,759	7,818	36	1	37	0	6	2	88	43	31	0.95	0.05	2.25	
00107	1,225	2,455	82	1	83	0	62	59	1,110	83	21	6.76	4.81	90.43	
00118	1,559	3,731	78	0	78	0	48	3	235	486	30	4.18	0.16	12.60	
							PIPELINE-LIQUID								
Total	7,081	14,392	263	8	271	0	76	51	1,505	812	195	3.77	0.71	20.91	
00017	635	1,162	33	4	37	0	14	14	511	11	23	6.37	2.41	87.95	
00021	249	458	11	0	11	0	0	0	0	0	11	4.80	0.00	0.00	
00029	679	1,412	26	0	26	0	10	10	299	65	16	3.68	1.42	42.35	
00033	16	37	2	0	2	0	2	2	12	0		10.81	10.81	64.86	
00038	132	300	5	0	5	0	0	0	0	0	5	3.33	0.00	0.00	
00041	589	1,212	15	1	16	0	2	1	92	10	14	2.64	0.17	15.18	
00043	57	108	3	0	3	0	1	1	6	0	2	5.56	1.85	11.11	
00047	340	681	4	0	4	0	1	1	110	0	3	1.17	0.29	32.31	
00055	128	250	21	0	21	0	4	4	5	0	17	16.80	3.20	4.00	
00065	423	804	13	0	13	0	5	5	43	14	8	3.23	1.24	10.70	
00083	37	77	1	0	1	0	1	1	1	0		2.60	2.60	2.60	
00091	315	605	2	0	2	0	0	0	0	0	2	0.66	0.00	0.00	
00092	36	75	1	0	1	0	0	0	0	0	1	2.67	0.00	0.00	
00093	35	64	3	0	3	0	1	1	4	0	2	9.38	3.13	12.50	
00099	1,052	2,119	16	1	17	0	5	4	48	1	12	1.60	0.38	4.53	
00106	728	1,515	30	1	31	0	9	0	0	88	22	4.09	0.00	0.00	
00111	413	956	31	0	31	0	3	1	101	125	28	6.49	0.21	21.13	
00113	49	102	1	0	1	0	0	0	0	0	1	1.96	0.00	0.00	
00118	284	603	10	0	10	0	6	3	230	372	4	3.32	1.00	76.29	
00122	140	293	3	0	3	0	1	1	21	27	2	2.05	0.68	14.33	
00175	31	42	1	0	1	0	1	1	6	0		4.76	4.76	28.57	
00219	713	1,517	31	1	32	0	10	1	16	99	22	4.22	0.13	2.11	
							PIPELINE-GAS								
Total	19,645	39,951	973	47	1,020	1	544	365	6,330	3,496	475	5.11	1.83	31.69	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Lost Workday Cases: Total Lost Workday Cases	f. Lost Workday Cases: Cases Involving Days Away From Work	g. Lost Workday Cases: Number of Days Away From Work	h. Lost Workday Cases: Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Work days Days Away From Work	Function
PIPELINE-GAS (continued)															
00010	36	73	0	0	0							0.00	0.00	0.00	
00030	1,201	2,274	38	1	39	0	19	19	441	0	20	3.43	1.67	38.79	
00031	3,288	7,325	135	5	140	0	43	43	836	156	97	3.82	1.17	22.83	
00037	2,974	6,252	42	7	49	0	16	16	633	679	33	1.57	0.51	20.25	
00041	131	270	2	1	3	0	1	0	0	2	2	2.22	0.00	0.00	
00054	1,548	3,173	111	0	111	0	41	41	547	0	70	7.00	2.58	34.48	
00056	4,718	9,170	344	12	356	0	260	117	1,825	1,953	96	7.76	2.55	39.80	
00064	2,891	5,398	191	0	191	1	116	88	1,043	328	74	7.08	3.30	38.64	
00074	81	156	2	0	2	0	0	0	0	0	2	2.56	0.00	0.00	
00083	24	50	3	0	3	0	2	2	4	0	1	12.00	8.00	16.00	
00094	10	18	0	0	0							0.00	0.00	0.00	
00124	221	436	5	0	5	0	4	0	0	16	1	2.29	0.00	0.00	
00162	1,359	3,195	51	19	70	0	16	13	345	332	54	4.38	0.81	21.60	
00182	5	10	1	0	1	0	1	1	22	0		20.00	20.00	440.00	
00204	875	1,587	34	0	34	0	17	17	471	30	17	4.28	2.14	59.36	
00205	283	564	14	2	16	0	8	8	163	0	8	5.67	2.84	57.80	
PIPELINE-NOT SEPARATED[4]															
Total	7,927	15,698	226	5	231	2	93	61	860	423	136	2.94	0.80	10.96	
00011	89	180	5	0	5	0	0	0	0	0	5	5.56	0.00	0.00	
00014	985	2,049	33	0	33	0	8	8	254	0	25	3.22	0.78	24.79	
00023	6	14	0	0	0							0.00	0.00	0.00	
00024	700	1,616	14	0	14	0	7	7	40	0	7	1.73	0.87	4.95	
00032	2,638	5,486	65	0	65	2	28	4	111	262	35	2.37	0.22	4.05	
00058	117	281	6	0	6	0	1	1	55	0	5	4.27	0.71	39.15	
00060	340	626	14	3	17	0	5	1	11	112	12	5.43	0.32	3.51	
00090	588	266	7	0	7	0	3	0	0	44	4	5.26	0.00	0.00	
00107	590	1,156	15	2	17	0	5	4	41	5	12	2.94	0.69	7.09	
00109	1,802	3,914	62	0	62	0	31	31	179	0	31	3.17	1.58	9.15	
00175	72	110	5	0	5	0	5	5	169	0		9.09	9.09	307.27	
MARINE-TANKER															
Total	1,613	5,240	52	3	55	1	47	45	2,759	7	7	2.10	1.76	105.31	
00014	570	1,366	25	0	25	1	24	24	965	0		3.66	3.66	141.29	
00041	735	3,241	24	3	27	0	21	19	1,792	7	6	1.67	1.17	110.58	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Lost Workday Cases: Total Lost Work-day Cases	f. Cases Involving Days Away From Work	g. Number of Days Away From Work	h. Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Work-days	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Work days Days Away From Work	Function
MARINE-TANKER (continued)															
00047	125	252	0	0	0							0.00	0.00	0.00	
00106	183	381	3	0	3	0	2	2	2	0	1	1.57	1.05	1.05	
MARINE-INLAND															
Total	459	1,752	22	0	22	0	12	12	134	109	10	2.51	1.37	15.30	
00041	310	1,429	16	0	16	0	8	8	97	89	8	2.24	1.12	13.58	
00083	69	157	5	0	5	0	4	4	37	20	1	6.37	5.10	47.13	
00106	80	166	1	0	1	0	0	0	0	0	1	1.20	0.00	0.00	
MARINE-NOT SEPARATED[5]															
Total	1,139	3,705	47	1	48	0	18	18	415	0	30	2.59	0.97	22.40	
00032	176	366	1	0	1	0	0	0	0	0	1	0.55	0.00	0.00	
00041	126	244	0	0	0							0.00	0.00	0.00	
00107	451	2,305	44	1	45	0	17	17	410	0	28	3.90	1.48	35.57	
00109	362	736	2	0	2	0	1	1	5	0	1	0.54	0.27	1.36	
00118	24	54	0	0	0							0.00	0.00	0.00	
RESEARCH AND DEVELOPMENT															
Total	9,574	18,935	139	25	164	0	45	13	256	377	119	1.73	0.14	2.70	
00011	105	209	1	0	1	0	0	0	0	0	1	0.96	0.00	0.00	
00014	106	221	0	0	0							0.00	0.00	0.00	
00032	759	1,578	9	0	9	0	2	1	30	15	7	1.14	0.13	3.80	
00042	1,178	2,276	9	4	13	0	8	0	103	131	5	1.14	0.00	9.05	
00065	305	559	4	0	4	0	2	0	0	42	2	1.43	0.00	0.00	
00068	32	64	1	0	1	0	1	1	4	0		3.13	3.13	12.50	
00090	855	1,689	16	2	18	0	5	0	0	26	13	2.13	0.00	0.00	
00099	2,059	3,945	17	7	24	0	5	1	1	69	19	1.22	0.05	0.05	
00106	1,909	3,971	32	7	39	0	6	2	77	57	33	1.96	0.10	3.88	
00107	191	385	3	1	4	0	2	0	0	10	2	2.08	0.00	0.00	
00109	857	1,739	26	0	26	0	2	2	5	0	24	2.99	0.23	0.58	
00118	820	1,574	17	4	21	0	10	5	35	23	11	2.67	0.64	4.45	
00145	398	725	4	0	4	0	2	1	1	4	2	1.10	0.28	0.28	
GENERAL SERVICES															
Total	3,368	6,742	142	5	147	0	50	37	724	267	97	4.36	1.10	21.48	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Lost Workday Cases: Total Lost Work-day Cases	f. Lost Workday Cases: Cases Involving Days Away From Work	g. Lost Workday Cases: Number of Days Away From Work	h. Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Work days Days Away From Work	Function
GENERAL SERVICES (continued)															
00014	406	881	75	3	78	0	22	20	303	6	56	17.71	4.54	68.79	
00032	497	1,034	8	0	8	0	2	1	10	12	6	1.55	0.19	1.93	
00041	506	1,052	10	2	12	0	2	2	17	97	10	2.28	0.38	3.23	
00042	389	752	12	0	12	0	8	3	45	29	4	3.19	0.80	11.97	
00065	228	410	8	0	8	0	2	2	48	0	6	3.90	0.98	23.41	
00068	92	184	0	0	0							0.00	0.00	0.00	
00074	163	316	14	0	14	0	6	5	118	15	8	8.86	3.16	74.68	
00090	668	1,385	8	0	8	0	2	0	0	15	6	1.16	0.00	0.00	
00099	407	705	7	0	7	0	6	4	183	93	1	1.99	1.13	51.91	
00103	5	9	0	0	0							0.00	0.00	0.00	
00113	7	14	0	0	0							0.00	0.00	0.00	
ADMINISTRATION, ENGINEERING, AND OTHER															
Total	44,802	92,044	424	33	457	0	267	152	2,754	2,118	190	0.99	0.33	5.98	
00005	740	1,480	1	0	1	0	1	1	1	0		0.14	0.14	0.14	
00011	712	1,219	3	0	3	0	0	0	0	0	3	0.49	0.00	0.00	
00014	3,235	6,555	38	0	38	0	23	12	334	65	15	1.16	0.37	10.19	
00022	50	92	0	0	0							0.00	0.00	0.00	
00023	871	1,803	2	0	2	0	0	0	0	0	2	0.22	0.00	0.00	
00024	255	530	0	0	0							0.00	0.00	0.00	
00025	44	90	2	0	2	0	0	0	0	0	2	4.44	0.00	0.00	
00026	20	40	0	0	0							0.00	0.00	0.00	
00027	867	2,544	14	0	14	0	3	3	3	0	11	1.10	0.24	0.24	
00032	2,983	6,203	11	0	11	0	2	2	25	1	9	0.35	0.06	0.81	
00041	3,719	8,710	18	5	23	0	12	8	222	84	11	0.53	0.18	5.10	
00042	896	1,731	1	1	2	0	2	2	5	4		0.23	0.23	0.58	
00062	24	46	0	0	0							0.00	0.00	0.00	
00065	2,015	3,615	7	1	8	0	5	5	41	39	3	0.44	0.28	2.27	
00068	61	122	1	0	1	0	0	0	0	0	1	1.64	0.00	0.00	
00074	234	434	4	0	4	0	0	0	0	0	4	1.84	0.00	0.00	
00075	260	538	1	0	1	0	0	0	0	0	1	0.37	0.00	0.00	
00077	7	13	0	0	0							0.00	0.00	0.00	
00090	1,690	3,528	9	0	9	0	3	1	2	16	6	0.51	0.06	0.11	
00093	21	38	0	0	0							0.00	0.00	0.00	
00094	5	7	0	0	0							0.00	0.00	0.00	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Lost Workday Cases: Total Lost Workday Cases	f. Lost Workday Cases: Cases Involving Days Away From Work	g. Lost Workday Cases: Number of Days Away From Work	h. Lost Workday Cases: Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Workdays Away From Work	Function
ADMINISTRATION, ENGINEERING, AND OTHER (continued)															
00095	1,667	3,267	94	0	94	0	72	14	202	923	22	5.75	0.86	12.37	
00099	5,104	9,827	30	10	40	0	18	14	137	100	22	0.81	0.28	2.79	
00100	17	33	0	0	0							0.00	0.00	0.00	
00106	8,723	18,144	95	9	104	0	67	40	1,138	537	37	1.15	0.44	12.54	
00107	1,916	3,839	10	0	10	0	8	8	146	22	2	0.52	0.42	7.61	
00109	6,234	12,679	51	4	55	0	36	30	355	206	19	0.87	0.47	5.60	
00113	47	95	0	0	0							0.00	0.00	0.00	
00118	1,882	3,842	30	3	33	0	14	11	142	121	19	1.72	0.57	7.39	
00125	62	115	1	0	1	0	1	1	1	0		1.74	1.74	1.74	
00140	188	391	1	0	1	0	0	0	0	0	1	0.51	0.00	0.00	
00175	90	135	0	0	0							0.00	0.00	0.00	
00184	2	4	0	0	0							0.00	0.00	0.00	
00191	161	335	0	0	0							0.00	0.00	0.00	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES
OFFSHORE FUNCTIONS

1		2	3	4			5						6		
				Recordable Cases			Extent and Outcome of Injury and Illness						Incidence Rates		
				a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.
								Lost Workday Cases							
Function	Function Key[1]	Average Number of Employees	Hours Worked Thousands	Injuries	Illnesses	Total	Fatalities	Total Lost Workday Cases	Cases Involving Days Away From Work	Number of Days Away From Work	Number of Days of Restricted Activity	Non Fatal Cases Without Lost Workdays	Total Cases	Fatal plus Days Away From Work Cases	Lost Workdays Days Away From Work
Off. Exploration	a	562	1,176	3	0	3	0	1	0	0	3	2	0.51	0.00	0.00
Off. Production	b	3,738	9,057	146	1	147	0	78	58	2,143	200	69	3.25	1.28	47.32
Off. Drilling	d	669	2,200	41	0	41	1	17	13	875	62	23	3.73	1.27	79.55
Comb. Not Sep.[2]	abd	367	763	1	0	1	0	0	0	0	0	1	0.26	0.00	0.00
Total Offshore		5,336	13,196	191	1	192	1	96	71	3,018	265	95	2.91	1.09	45.74

Incidence Rates (Column 6) are calculated as follows:

$$\text{Column 6(j)} = \frac{\text{Column 4(c)} \times 200{,}000}{\text{Column 3} \times 1{,}000} \qquad \text{Column 6(k)} = \frac{\text{Column 5(d)} + \text{5(f)} \times 200{,}000}{\text{Column 3} \times 1{,}000} \qquad \text{Column 6(l)} = \frac{\text{Column 5(g)} \times 200{,}000}{\text{Column 3} \times 1{,}000}$$

[1]Keyed to definitions outlined in the API Fire and Safety Data System User's Manual.
[2]Exploration, Production and Drilling data unable to be separated as listed.

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES
OFFSHORE FUNCTIONS

The following code will indicate the functions for which each company reported:

a - Exploration b - Production d - Drilling abd - Comb. Not. Sep.

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	Extent and Outcome of Injury and Illness d. Fatalities	e. Lost Workday Cases: Total Lost Work-day Cases	f. Lost Workday Cases: Cases Involving Days Away From Work	g. Lost Workday Cases: Number of Days Away From Work	h. Lost Workday Cases: Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Work-days	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Work days Days Away From Work	Function
ALL FUNCTIONS															
Total	5,336	13,196	191	1	192	1	96	71	3,018	265	95	2.91	1.09	45.74	
00005	117	234	11	0	11	0	9	9	298	0	2	9.40	7.69	254.70	b
00014	46	101	4	0	4	0	2	1	5	1	2	7.92	1.98	9.90	bd
00023	24	43	2	0	2	0	1	1	10	0	1	9.30	4.65	46.51	b
00027	105	476	7	0	7	0	2	2	49	0	5	2.94	0.84	20.59	b
00047	367	763	1	0	1	0	0	0	0	0	1	0.26	0.00	0.00	(abd)
00058	799	3,057	50	0	50	1	15	12	970	57	34	3.27	0.85	63.46	bd
00065	389	1,212	26	0	26	0	20	10	480	114	6	4.29	1.65	79.21	bd
00099	2,534	5,443	44	0	44	0	21	11	430	91	23	1.62	0.40	15.80	abd
00102	60	122	0	0	0							0.00	0.00	0.00	b
00106	401	835	15	1	16	0	9	8	404	2	7	3.83	1.92	96.77	b
00118	445	808	31	0	31	0	17	17	372	0	14	7.67	4.21	92.08	b
00140	10	21	0	0	0							0.00	0.00	0.00	a
00191	39	81	0	0	0							0.00	0.00	0.00	abd
OFF. EXPLORATION															
Total	562	1,176	3	0	3	0	1	0	0	3	2	0.51	0.00	0.00	
00099	524	1,097	3	0	3	0	1	0	0	3	2	0.55	0.00	0.00	
00140	10	21	0	0	0							0.00	0.00	0.00	
00191	28	58	0	0	0							0.00	0.00	0.00	
OFF. PRODUCTION															
Total	3,738	9,057	146	1	147	0	78	58	2,143	200	69	3.25	1.28	47.32	
00005	117	234	11	0	11	0	9	9	298	0	2	9.40	7.69	254.70	
00014	32	70	4	0	4	0	2	1	5	1	2	11.43	2.86	14.29	
00023	24	43	2	0	2	0	1	1	10	0	1	9.30	4.65	46.51	
00027	105	476	7	0	7	0	2	2	49	0	5	2.94	0.84	20.59	
00058	403	1,435	19	0	19	0	4	1	133	50	15	2.65	0.14	18.54	
00065	383	1,201	26	0	26	0	20	10	480	114	6	4.33	1.67	79.93	
00099	1,758	3,812	31	0	31	0	14	9	392	33	17	1.63	0.47	20.57	
00102	60	122	0	0	0							0.00	0.00	0.00	
00106	401	835	15	1	16	0	9	8	404	2	7	3.83	1.92	96.77	
00118	445	808	31	0	31	0	17	17	372	0	14	7.67	4.21	92.08	

OCCUPATIONAL INJURIES AND ILLNESSES FOR THE YEAR 1989
COVERING PETROLEUM AND PETROCHEMICAL OPERATIONS OF REPORTING COMPANIES
OFFSHORE FUNCTIONS

Co. No.	Average Number of Employees	Hours Worked Thousands	Recordable Cases a. Injuries	b. Illnesses	c. Total	d. Fatalities	Extent and Outcome of Injury and Illness e. Total Lost Workday Cases	f. Cases Involving Days Away From Work	g. Number of Days Away From Work	h. Number of Days of Restricted Activity	i. Non Fatal Cases Without Lost Workdays	Incidence Rates j. Total Cases	k. Fatal plus Days Away From Work Cases	l. Lost Workdays Away From Work	Function
OFF. PRODUCTION (continued)															
00191	10	21	0	0	0							0.00	0.00	0.00	
OFF. DRILLING															
Total	669	2,200	41	0	41	1	17	13	875	62	23	3.73	1.27	79.55	
00014	14	31	0	0	0							0.00	0.00	0.00	
00058	396	1,622	31	0	31	1	11	11	837	7	19	3.82	1.48	103.21	
00065	6	11	0	0	0							0.00	0.00	0.00	
00099	252	534	10	0	10	0	6	2	38	55	4	3.75	0.75	14.23	
00191	1	2	0	0	0							0.00	0.00	0.00	
COMBINATION OF EXPLORATION, PRODUCTION AND DRILLING[2]															
Total	367	763	1	0	1	0	0	0	0	0	1	0.26	0.00	0.00	
00047	367	763	1	0	1	0	0	0	0	0	1	0.26	0.00	0.00	

1989 Fatality Information

FIFTY-SEVENTH ANNUAL SUMMARY OF FATAL INJURIES AS REPORTED TO THE AMERICAN PETROLEUM INSTITUTE BY THE PETROLEUM INDUSTRY FOR 1989

ON DUTY FATAL INJURIES

Ninety-six oil and gas companies and their subsidiaries, employing over 276,000 workers, reported 46 on-duty fatal accidents during 1989. This is equivalent to one fatality for every 6,002 workers employed, as compared to one fatality for every 9,748 workers in 1988.

Thirteen companies submitted detailed information on the circumstances surrounding 18 of the 46 on-duty fatal accidents.

The American Petroleum Institute (API) has published information on fatal accidents in the petroleum industry since 1933. Each incident is described in a brief narrative format and is intended to provide information that could be used to avoid the occurrence of similar accidents in the future.

NOTE: These data cover company employees only; contractor safety statistics are not included.

PRODUCTION

3/19/89 -- Fire and Explosion

Five employees were fatally injured when a gas transmission line (thought to be de-pressured) was cut under the platform. A large quantity of gas and condensate was released, these were ignited and the platform was engulfed in flame.

10/11/89 -- Motor Vehicle

A field operator was traveling between production leases, which required driving through a railroad crossing. The crossing was marked with signs only. The route was frequently travelled by the employee. The employee failed to notice an oncoming train and was struck by a locomotive when the truck and train met at the crossing. The impact caused the employee to hit the passenger-side window and door. The cause of the accident has been attributed to inattention. Safety meetings were scheduled and used to communicate the necessity of being attentive to the job at hand and the immediate surroundings.

GAS PROCESSING

8/6/89 -- Fire and Explosion

A plant operator was fatally injured when the sixth stage discharge line (operating at 2200psi) of a seven stage Nitrogen injection compressor ruptured with the employee standing directly above the ruptured line.

REFINING

4/26/89 -- Toxic Gas or Liquid

A pipe fitter working at a power station was burned and died of his injuries on May 15, 1989. The deceased was assisting in removing a valve from piping that was thought to be empty. Apparently, there was some type of blockage in the line that broke loose and released hot condensate onto the employee. He sustained second degree burns that were initially estimated to have covered fifty percent of his body, but later were determined to cover eighty percent. The employee succumbed to the combined effects of infection and a pre-existing heart condition.

5/11/89 -- Fall

A pipefitter was fatally injured when he climbed from the ground up to assist a co-worker in welding a brace on process piping. Upon reaching the second level he stepped off the access ladder and through an opening in the catwalk (the opening was there to allow clearance to install a new section of piping - however, when the section of decking was removed no guards or warning signs were installed to prevent someone from falling through) falling approximately 25 feet and impaling himself on a vertical scaffold tube. To prevent a reoccurrence of this type of accident, management provided formal safety training to all supervisors and instructed all employees to bring safety concerns to the attention of management.

5/13/89 -- Fire and Explosion

An operations department shiftbreaker was placing a naphtha control valve station back into service at the low pressure pretreater unit. Naphtha vapors were released from an open drain valve and drifted to a heater unit and ignited. The employee incurred severe burns and died as a result.

8/1/89 -- Fire and Explosion

A coke helper was getting unit ready to start up. He was investigating a hydrocarbon leak at a flange at the Amine unit when hydrocarbons ignited causing flash burn.

12/23/89 -- Fire and Explosion

An operator working at the Alkylation Unit was fatally injured when a butane release from a leaking flange resulted in a flash fire. Employees were in the process of shutting down the unit when the flash fire occurred.

12/24/89 -- Fire and Explosion

During unusally cold weather (10°F), a number of refinery process units had been shut down. A plant-feed natural gas liquids line ruptured and the resulting hydrocarbon vapor cloud ignited. A pipefitter/welder mechanic was fatally injured and the ensuring fire completely destroyed the workshop where the employee was located.

12/29/89 -- Struck by Equipment

A metals craftsman working at the Alkylation Unit was fatally injured after being struck in the chest by a wire rope while the tube bundle was being pulled from a heat exchanger. The employee experienced cardiac arrest and received CPR as he was being transferred to the hospital, but efforts to revive him were unsuccessful.

PIPELINE-GAS

8/16/89 -- Motor Vehicle

An employee was fatally injured while being a passenger in a company vehicle traveling between company facilities. Company driver failed to see slow moving construction vehicle until it was too late to avoid a collision. Collision resulted in fatal injuries to employee.

PIPELINE (NOT SEPARATED)

7/26/89 -- Motor Vehicle

Two transport drivers with a load of wastewater were killed upon impact when unit struck the rear of a stopped flatbed truck loaded with lumber. The flatbed truck was stopped in an attempt to turn left into a local truckstop.

MARINE TANKER

1/11/89 - Fall

A seaman was fatally injured when upon returning to the ship from liberty, fell into the ocean from the pilots ladder.

LIST OF RESPONDENTS TO 1989 SURVEY

	KEY	NAME
1.	00010	ALABAMA-TENNESSEE NATURAL GAS COMPANY
2.	00106	AMOCO OIL CORPORATION
3.	00219	AMOCO PIPELINE COMPANY
4.	00014	ATLANTIC RICHFIELD COMPANY
5.	00182	BATH PETROLEUM STORAGE INC.
6.	00191	BHP PETROLEUM (AMERICAS), INC.
7.	00220	BIG WEST OIL/FLYING J
8.	00047	BP OIL COMPANY
9.	00017	BUCKEYE PIPE LINE COMPANY
10.	00019	CABOT OIL AND GAS CORPORATION
11.	00020	CALCASIEU REFINING COMPANY
12.	00021	CELERON OIL & GAS COMPANY
13.	00022	CELSIUS ENERGY COMPANY
14.	00024	CHEVRON U.S.A. INC.
15.	00025	CHEYENNE LIGHT, FUEL & POWER COMPANY
16.	00026	CIBRO PETROLEUM PRODUCTS, INC.
17.	00187	CLARK OIL & REFINING CORPORATION
18.	00029	COLONIAL PIPELINE COMPANY
19.	00030	COLORADO INTERSTATE GAS COMPANY
20.	00006	COLORADO REFINING COMPANY
21.	00031	COLUMBIA GAS TRANSMISSION CORPORATION
22.	00032	CONOCO INC.
23.	00033	COOK INLET PIPE LINE COMPANY
24.	00184	DAYLIGHT ENGINEERING
25.	00196	D. J. WITMAN COMPANY
26.	00037	EL PASO NATURAL GAS COMPANY
27.	00001	ENERFIN GAS PROCESSING CORPORATION
28.	00205	ENOGEX INC.
29.	00122	ENRON LIQUID FUELS COMPANY
30.	00035	ENSERCH EXPLORATION, INC.
31.	00038	EXPLORER PIPELINE COMPANY

32.	00041	EXXON COMPANY, U.S.A.
33.	00042	EXXON RESEARCH & ENGINEERING COMPANY
34.	00043	FARMLAND INDUSTRIES, INC.
35.	00011	FINA OIL AND CHEMICAL COMPANY
36.	00190	FRONTIER REFINING, INC.
37.	00193	FUEL RESOURCES DEVELOPMENT COMPANY
38.	00046	GOLDEN WEST REFINING COMPANY
39.	00158	HELLMAN PROPERTIES
40.	00048	H & D OPERATING COMPANY
41.	00053	INDIANA FARM BUREAU COOPERATIVE ASSOCIATION
42.	00208	J. D. STREET & COMPANY INC.
43.	00055	KANEB PIPE LINE COMPANY
44.	00056	KPL GAS SERVICE
45.	00057	KENTUCKY HYDROCARBON
46.	00058	KERR MCGEE CORPORATION
47.	00054	KN ENERGY INC.
48.	00060	LAKEHEAD PIPE LINE COMPANY, INC.
49.	00062	LARIO OIL & GAS COMPANY
50.	00173	LION OIL COMPANY
51.	00064	LONE STAR GAS COMPANY
52.	00218	MAPCO ALASKA PETROLEUM INC.
53.	00065	MARATHON OIL COMPANY
54.	00068	MERICHEM COMPANY
55.	00071	MISSISSIPPI VALLEY GAS COMPANY
56.	00145	MOBIL RESEARCH AND DEVELOPMENT CORPORATION
57.	00075	MURPHY OIL USA INC.
58.	00175	NATIONAL COOPERATIVE REFINERY ASSOCIATION
59.	00077	NATIONAL HELIUM CORPORATION
60.	00079	NAVAJO REFINING COMPANY
61.	00083	OHIO OIL GATHERING CORPORATION
62.	00005	ORYX ENERGY COMPANY
63.	00027	OXY USA INC.
64.	00008	PENNZOIL PRODUCTS COMPANY ROOSEVELT REFINERY
65.	00090	PHILLIPS PETROLEUM COMPANY
66.	00091	PLANTATION PIPE LINE COMPANY
67.	00092	PORTAL PIPE LINE COMPANY

68.	00093	PORTLAND PIPE LINE CORPORATION
69.	00192	POWERINE OIL COMPANY
70.	00094	PRODUCERS GAS EQUITIES, INC.
71.	00095	PUBLIC SERVICE COMPANY OF COLORADO
72.	00202	QUANTUM, USI DIVISION
73.	00074	QUESTAR PIPELINE COMPANY
74.	00140	SANTA FE ENERGY RESOURCES, INC.
75.	00099	SHELL OIL COMPANY
76.	00100	SID RICHARDSON CARBON & GAS COMPANY
77.	00009	SKAER ENTERPRISES, INC.
78.	00101	SOMERSET REFINERY INC.
79.	00102	SONAT EXPLORATION COMPANY
80.	00103	SOUTH KENTUCKY PURCHASING COMPANY
81.	00138	SOUTHLAND OIL COMPANY
82.	00107	SUN COMPANY, INC.
83.	00003	TAUBER OIL COMPANY
84.	00109	TEXACO INC.
85.	00111	TEXAS EASTERN PRODUCTS & PIPE LINE COMPANY
86.	00162	TEXAS GS TRANSMISSION CORPORATION
87.	00139	TOSCO REFINING COMPANY
88.	00113	TRUE DRILLING
89.	00121	UNITED REFINING COMPANY
90.	00116	U.S. OIL & REFINING COMPANY
91.	00222	U.S. REFINING & MARKETING COMPANY
92.	00023	UNION PACIFIC RESOURCES COMPANY
93.	00118	UNOCAL CORPORATION
94.	00124	WESTERN GAS SUPPLY COMPANY
95.	00125	WEXPRO COMPANY
96.	00204	WILLIAMS NATURAL GAS COMPANY

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1-1410—5/90—4.5 (9C)

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